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Towards a maritime security regime for hazardous materials in the European Union

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Abstract: The present research has to do with the study of legal protection within the framework of European law that deals with marine environmental protection as the basis of a maritime evolution of hazardous materials. Hazardous materials during the transport of ships in EU Member States is a field where, through continuous accidents over time, has resulted in the creation of an incomplete protection regime which is based on the marine protection of the environment and shipping politics within the EU context.

Keywords: European law; maritime environmental protection; right of navigation; freedom of navigation; right of the sea; hazardous materials; EU; transport of hazardous materials by sea; maritime transport; Marpol; UNCLOS; European Commission; EMSA; VTMIS; THETIS; CJEU; Comar; CPSS; SOLAS; FAL; maritime single window; SafeSeaNet; AIS;

ECDIS; LRIT; VDR.

Introduction

The protection of the marine environment and in particular from the transport of hazardous materials by ships within the EU territory has to do with binding and not decisions within an EU political, legal system for making decisions towards a European integration¹ where the Member States of the Union explicitly and implicitly try to limit individual decisions at national and international level.

The EU within its powers tries with the help of EU and international law to complete a system of law created by international agreements that have to do with the contracting parties. EU law thus complements international law as well as adapts national law to new ways. Through the supremacy of EU law, Member States will refrain from legislative initiatives and from international agreements where they would be in a compatible manner in accordance with EU law (Schütze, 2018; Chalmers, Davies, Monti, Heyvaert, 2024)².

Hazardous Material/Hazmat is defined as:

“(...) any element or agent (biological, chemical or physical) that has the potential to cause harm to humans, animals, or the environment, either independently or through interaction with other agents (...) substance or

¹[https://www.europarl.europa.eu/RegData/etudes/PERI/2018/618969/IPOL_PERI\(2018\)618969_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/PERI/2018/618969/IPOL_PERI(2018)618969_EN.pdf)

²C-106/77, Finance Administration v. Simmenthal of 9 March 1978, ECLI:EU:C:1978:49, I-00629.

material which may cause an equine risk to health, safety or property when subject to commercial transport (...) (Institute of Hazardous Materials Management - IMM, 2018; PHMSA, 2018) (...) can transport dangerous goods by ships”.

According to the British Regulation, The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 classified and included in:

“(...) IMDG Code (International Maritime Dangerous Goods Code) or in any IMO regulation mention as dangerous materials for the sea transport (...) explosives, liquefied gases, flammable liquids-solids, oxidizing substances, toxic-chemicals, radioactive-nuclear, corrosive and waste from the use of hazardous materials. Hazardous materials are divided into (a) liquids (b) solids and (c) gases. Liquids can be flammable, toxic-poisonous or corrosive-caustic. Solids take the form of flammable and self-igniting materials, while gases are flammable, suffocating and toxic-poisonous. In particular, as will be shown below, there is a significant demand for energy, raw materials or goods based on hazardous materials, i.e. oil, coal, LPG, LNG, chemicals and in this connection maritime transport of (a) petroleum products is carried out as provided for in Annex I of MARPOL 73/78, (b) gases as referred to in the GC Code, (c) harmful liquids/chemicals, including wastes, as referred to on the one hand in the IBC Code and on the other hand in Annex II of MARPOL 73/78, (d) solid bulk cargoes, which present a low chemical risk according to the IMSBC Code11 (e) harmful substances, in packaging, according to Annex III of MARPOL 73/78 and (f) Packaged dangerous materials as referred to in the IMDG Code, i.e. dangerous materials packaged/placed in containers (...”).

In an environment with a great development of technology and know-how, every form of cooperation to resolve disputes at sea is realized through the continuous flow of information in the sector of maritime trade between international and European level. The confrontation between coastal and maritime states contributes to an often uncertain outcome for hazardous materials and the protection of the marine environment.

At a European level, Article 227bTFEU (Blanke, Mangiamelli, 2021) lays the foundations for commercial policy and the

specific terms with third countries, international organizations. And finally, Article 288 which gives the legal acts that regulate EU issues. An EU right where, in a dynamic way, it lays the foundations for differentiation from international law and the creation of a regime for the protection of the marine environment from hazardous materials that escape from ships.

Which EU institutions deal with the maritime transport of dangerous goods?

The European Commission (EC) monitors the maritime trade that has the largest number of intra-EU exports. This policy began in 1986/1989 due to the maritime accidents that occurred with ships transporting dangerous goods. We are talking about the accidents of the ships Aegean Sea (1992), Braer (1993), Estonia (1994), Erika (1999) and Prestige (2002), shaping a special framework of hazardous materials for the protection of the marine environment. The EC cooperates with international organizations with the aim of safety, environmental protection, both regionally and internationally.

We note at the regional level the HELCOM Conventions for the Baltic Sea, the Barcelona Convention for the Mediterranean Sea, the OSPAR for the Northeast Atlantic Ocean and the Bucharest Convention for the Black Sea. These are International Conventions that are part of EU law and are formed within a

framework for the transport of hazardous materials for maritime protection by DG MOVE-Directorate-General for Mobility and Transport, DG MARE-Directorate-General for Maritime Affairs and Fisheries and DG ENVI-Directorate-General for Environment.

DG MOVE- Directorate-General for Mobility and Transport

The specific responsibilities of DG MOVE³ have been included within a framework of regulations for the safety and transport of materials in the marine environment. The EU and international level has to do with maritime transport through a transport policy that, beyond trade, has as tasks to fulfill the safety at sea, the inspection of ships, the protection of the marine environment and the withdrawal of single-hull tankers (DG MOVE, 2019).

COSS-Committee on Safe Seas and the Prevention of Pollution from Ships

The COSS-Committee on Safe Seas and the Prevention of Pollution from Ships, as an auxiliary committee of DG MOVE ensures the EU legislation on safety issues related to shipping, prevention and marine pollution⁴. The Member States participate

3https://ec.europa.eu/transport/home_en

4Commission Regulation (EU) 2022/2099 of 28 October 2022 establishing a fisheries closure for giant red shrimp in GFCM geographical subareas 8, 9, 10 and 11 for vessels flying the flag of Italy and having an overall length equal or superior to 24

in the committee, which accordingly amend the EU maritime legislation from time to time and from time to time deal with (a) the port facilities of waste and residues from ships' cargoes with the aim of preventing marine pollution (b) the safety of ships which has to do with the shipbuilding, mechatronics, shipping and telecommunications sector (c) the control of maritime EU legislation in combination with the IMO which integrates international regulations into European law⁵.

European Maritime Safety Agency (EMSA)

Maritime safety after the Erika II accident dealt with the protection of the marine environment⁶. The European Maritime Safety Agency–EMSA) created by Regulation 1406/2002⁷ and has as its main object the strengthening of maritime safety, the protection of the marine environment and the reduction of maritime accidents through the promotion of legislation for the protection of the marine environment and ports and by developing research for maritime accidents. Thus, international conventions and particularly the European Maritime Safety

meters. C/2022/7935, OJ L 283, 3.11.2022, p. 1–3.

⁵Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers. OJ L 55, 28.2.2011, p. 13–18.

⁶https://ec.europa.eu/environment/eir/pdf/study_costs_not_implementing_env_law.pdf

⁷Regulation (EC) No 1406/2002 of the European Parliament and of the Council of 27 June 2002 establishing a European Maritime Safety Agency (Text with EEA relevance). OJ L 208, 5.8.2002, p. 1–9.

Agency (EMSA) defends an institutional framework for maritime safety and prevention.

EMSA through the VTMIS (Vessel Traffic Management Information System)⁸ tried to promote the communication of ships and ports. The SAFE SEA NET and THETIS system between EU Port States Protection and the auspices of EMSA aimed at an EU maritime institutional framework with greater awareness of maritime accident prevention and maritime safety, progress of its maritime industry EU and further development of EU states⁹.

The disposal of hazardous materials circumvents and involves the participation of more Member States to combat pollution at a regional level through and from the Cleanseanet Monitoring Satellite Service. Within this framework, EMSA with further measures strengthens the protection of the marine environment by Port State Control based on Directive 2009/16¹⁰ and the control of ships by port states. The purpose of the specific controls is to comply with the relevant procedures that came from the Paris MoU and by the inspectors of each state-port as

⁸Political and Security Committee Decision (CFSP) 2022/59 of 10 January 2022 on the appointment of the EU Force Commander for the European Union military operation in Bosnia and Herzegovina and repealing Decision (CFSP) 2021/5 (BiH/32/2022). ST/15031/2021/INIT. OJ L 10, 17.1.2022, p. 77–78.

⁹Regulation (EC) No 1406/2002 of the European Parliament and of the Council of 27 June 2002 establishing a European Maritime Safety Agency (Text with EEA relevance). OJ L 208, 5.8.2002, p. 1–9.

¹⁰Directive 2009/16/EC of the European Parliament and of the Council of 23 April 2009 on port state control (recast) (Text with EEA relevance). OJ L 131, 28.5.2009, p. 57–100.

well as the cross-checking of the relevant registration data within the THETIS information base.

DG MARE - Directorate- General for Maritime Affairs and Fisheries

When we talk about DG MARE we refer to: (a) the sustainability of resources in the oceans and its fisheries sector; (b) the promotion in maritime policies of a sustainable economy and; (c) the promotion of a better management of the oceans at international levels.

The sustainability and protection policies of the oceans has to do with the maritime economy and the commercial development of the EU. As well as the integration of marine surveillance and strategies in general for sea basins. In this way, there is a more general assessment and control of maritime traffic that is also based on air traffic.

Dangerous materials and movement of goods

The transport of dangerous goods from coastal states for the protection of the environment lead to restrictions and barriers to free trade, that compromise through special agreements is possible. The term waste is not a tradable item and has nothing to do with recycling goods¹¹.

¹¹CJEU, C-393/92, *Gemeente Almelo et al. v. NV Energiebedrijf IJsselmij* of 27 April 1994, ECLI:EU:C:1994:171, I-1277. C-159/94, *Commission v. France* of 23 October 1997, ECLI:EU:C:1997:501, I-05815.

Articles 34 and 35 TFEU (Blanke, Mangiamelli, 2021) do not refer to quantitative restrictions as a measure for EU Member States. In parallel, they are defined as equivalent parties:

“(...) all trade rules put in place by the Member States, the which may hinder, directly or indirectly, actually or potentially, intra-Community trade”. These must be considered measures which have an equivalent effect to quantitative restrictions¹².

Proceeding with article 36 TFEU (Blanke, Mangiamelli, 2021), specifically, the Court of Justice of the European Union (CJEU) stated that:

“(...) the protection of the environment is one of the essential objectives of the Community, capable of justifying certain limitations of the principle of free movement of goods (...)”¹³.

In this way, there is a ban on waste in EU Member States, as well as related chemical substances that have special characteristics¹⁴. The protection of the marine environment has also to do with public health¹⁵ and the protection of the environment is based on other arguments for the resolution of the same CJEU¹⁶.

12CJEU, 8/74, *Dassonville* of 11 July 1974, ECLI:EU:C:1974:84, I-00837, 411.

13CJEU, C-302/86, *Commission v. Denmark* of 20 December 1988, ECLI:EU:C:1988:421, 04607, par. 8.

14CJEU, C-2/90, *Commission v. Belgium* of 9 July 1992, ECLI:EU:C:1992:310, I-04431. C-473/98, *Toolex* of 11 July 2000, ECLI:EU:C:2000:379, I-05681.

15CJEU, C-67/97, *Bluhme* of 29 February 1998, ECLI:EU:C:1998:59, I-00535.

16CJEU, C-319/05, *Commission v. Germany* of 15 November 2007, ECLI:EU:C:2007:678, I-09811. C-186/05, *Commission v. Sweden* of 4 October 2007, ECLI:EU:C:2007:571, I-00129. C-297/05, *Commission v. Netherlands* of 20 September 2007, ECLI:EU:C:2007:531, I-07467. C-254/05, *Commission v. Belgium* of 7 June 2007, ECLI:EU:C:2007:319, I-04269. C-432/03, *Commission v. Portugal* of 10 November 2005, ECLI:EU:C:2005:669, I-09665.

EU external policy on the transport of dangerous materials

The Common Foreign and Security Policy of the EU beyond the area of protection through internal and external security of the states also has to do with a policy that imposes restrictive measures, sanctions on third states. These are measures that advance the EU's Common Foreign and Security Policy towards international legitimacy. The purpose of the measures is to avoid the negative consequences for those responsible and the political actions that have to do with the sanctions. Restrictive measures have been imposed in accordance with the decision of the Council of the EU and Articles 29 TEU, 215 TFEU (Blanke, Mangiamelli, 2021) applied among the EU Member States¹⁷.

Within this context, GATT and GATS act as auxiliaries in transactions and services that have to do with third countries, where enforcement is considered through capital embargoes, maritime embargoes and relative export restrictions. The arrest of ships as a result of the transport of hazardous materials within a framework of several restrictive measures and sanctions has to do with the blockade from state to state (Samiotis, Grekos, (2016).

We note the arrest of the tanker GRACE 1 in July 2019 between Gibraltar's territorial waters due to sanctions against Syria.

17 <https://www.consilium.europa.eu/en/policies/sanctions>

Specifically, the United Kingdom stated that:

“(...) Grace 1 was detained because it was suspected of being headed to Syria, and not because it was loaded with Iranian oil as a result of the implementation of EU sanctions against Syria (...). The arrest was based on EU Regulation 36/2012 and national legislation. The tanker Grace 1 was flagged in Panama (...) on 20.07.2019. The tanker Stena Impero was arrested in the Oman's coastal zone by Iranian warships. This incident caused a confrontation between the two states and eventually the tension was defused through diplomatic channels. Otherwise, the situation could lead to unforeseen consequences (...”).

EU trade policy and transport of hazardous materials

The EU through the relevant Articles 206 and 207 TFEU (Blanke, Mangiamelli, 2021) has to do with policies of integration of restrictions on international trade, i.e. with special policies that coincide with (a) The Common Customs Tariff that operates after the internal links have been agreed towards a single abolition in a common external tariff for goods in the domestic policy and with lower import duties; (b) trade barriers and entrances to the EU market where regulations and trade relations have developed with third countries and; (c) with relevant protection tools which have to do with anti-dumping measures and with duties imposed within the imports of goods that will circulate freely within the internal market of the EU and with corresponding goods within the EU.

These specific measures deal with various forms of distortion of the internal market. The problem in this case is whether the World Trade Organization (WTO) has any kind of application

within the EU. In this regard, the CJEU had decided that the WTO does not have any direct application within the framework of the EU and is only applied in the case of adoption of EU measures that have to do with WTO law (Zang, 2017; Petra, 2015; Griller, 2000).

The EU and its Member States have evolved the principles of coherence, coordination and complementarity as well as the competences that derived from Articles 208-210 TFEU (Blanke, Mangiamelli, 2021). The relative abolition of restrictions on international trade and the transport of hazardous materials has to do with the combination and the needs arising within the EU framework. A conduct that intensify the concerns of coastal states for the continued protection of the marine environment (Dawson, De Witte, 2022).

Transport of hazardous materials and energy protection in the EU

The relevant energy policy articles have nothing to do with the issues and confrontations of the EU institutions because Article 194 TFEU (Blanke, Mangiamelli, 2021) expressly grants competences for energy policy issues based on internal EU rules. Internal market and the security of supply of environmentally friendly energy policies (Dupuy, Viñuales, 2018) is a challenge for Member States that prioritize national

interests within EU common interests, bilateral treaties, energy memoranda and issues that have a not so clear role within this context.

Transportation of hazardous materials and environmental policy

The principle of integration and the sustainable development and protection of the environment starts from Article 11 TFEU (Blanke, Mangiamelli, 2021) which takes into account environmental protection in a non-express way. According to the decision 1386/2013/EU¹⁸ which falls under the seventh environmental action program is a strategy that deals with the pollution of the marine environment within the general policies of the EU¹⁹.

The EU institutions balance the protection of the environment with interests related to the sectors of general environmental protection. In parallel, EEP ensures through political and research programs that have to do with the eighth program, valid until 2030 and entitled “Well-being within the limits of our planet”: (a) the general protection of nature; (b) the European ecosystems; (b) the sustainable development and low carbon

¹⁸Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 ‘Living well, within the limits of our planet’ Text with EEA relevance. OJ L 354, 28.12.2013, p. 171–200.

¹⁹<https://ec.europa.eu/environment/action-programme/index.htm>

dioxide emissions as well as; (c) the fight against environmental threats.

The EU also participates in international discussions such as the Convention on Environment and Development in 1992, the UNFCCC, RIO+20 which deals with sustainable development since 2012 (Van Calster, Reins, 2018; Kingston et.al, 2017). It is a form of strategy for Europe 2020 whose purpose is sustainable development for a “smart, sustainable and inclusive development”.

The EU took part in regional discussions related to the 2030 agenda on sustainable development. The application of environmental law was adopted through the improvement of the efficiency of a regulatory framework (REFIT)²⁰ for the EU environment. In parallel, the European Parliament had decided on the application of environmental legislation with a related resolution entitled

“(...) Improvement of the benefits of EU environmental measures - Building trust through improving the knowledge base and response capacity COM/2012/095 Final (...).”

It deals with the relative inadequacy of implementing EU environmental legislation within the regime of national and EU law.

Finally, within a framework that deals with Articles 26 and 114, par. 3 TFEU (Blanke, Mangiamelli, 2021) the EC decided on the safety and protection of the environment in a general way and

²⁰<https://ec.europa.eu/environment/elia/sea-refit.htm>

without being any special explanatory measures for hazardous materials. Within this context, the functioning of the internal market and the protection of the environment between the sea for the transport of hazardous materials became problematic for the functioning of the general crisis that has to do with the EU economy of coastal states and shipping lines.

The EU's environmental policy for the coming years is about “(...) to protect the environment that has already been established. The next challenge is to ensure that this legislation is put into practice. One of the tasks of the European Commission is to ensure compliance with the specific legislation (...)”²¹.

The EU's protection policy has to do with the Mediterranean Sea, the Arctic, the Baltic Sea and the NE Atlantic Ocean, which include a legal basis for the protection of the marine environment and the EU's general environmental law. In particular, the EU adopts some original rules between international regulations for the protection of marine protected areas and the regulations of internal law.

The right to protection of the environment, the provisions of UNCLOS and the Guide 21 for marine conventions in the regional environment are areas of effort for the marine environment that start from the first part of action that started in 1973 and holds until today.

²¹https://ec.europa.eu/environment/basics/benefits-law/applying-eu-law/index_el.htm

The political commitments for the protection of the marine environment have to do with EU law²². The Directorate-General for the Environment of the EU (DG ENV) as responsible for submitting the relevant proposals for the marine environment in cooperation with the Directorate-General for Marine Affairs and Fisheries (DG MARE), the Directorate-General for Transport (DG MOVE) and the Directorate-General for Energy (DG ENERGY) have taken into account the external relations of the EU (External Action).

The relevant decision-making for the protection of the marine environment between the EU and the European Commission, where with DG ENV for marine environment protection issues, is dealt with the ENV.C.2 department, which is located according to the relevant organizational chart²³, as well as the working groups within COMAR²⁴ dealing with the Council's working group on the Law of the Sea and with COREPER. It is about groups of work that have to do with the protection of the marine environment.

²²Commission Decision (EU) 2017/848 of 17 May 2017 laying down criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU (Text with EEA relevance).

C/2017/2901. OJ L 125, 18.5.2017, p. 43–74.

²³https://ec.europa.eu/dgs/environment/pdf/org_en.pdf

²⁴<https://www.consilium.europa.eu/en/council-eu/preparatory-bodies/working-party-law-sea>

The conflict of interest and the principles of subsidiarity and proportionality have to do with EU action and the protection of the marine environment. The adoption of regional measures are connected with the protection of the EU sea and with international law. Difficulties on taking decisions deal with the EU policy of protection of the marine environment²⁵ and particularly with accidents of ships that transport hazardous materials. In other words this is the result of conflicts for coastal states and shipping between enclosed or semi-enclosed seas of the EU²⁶.

Within the framework of UNCLOS, the EU adopts through the competent international organizations the transport of hazardous materials. Especially, the EU has introduced through Directive 2000/60/EC²⁷ a framework for Community action in the field of water policy, as well as by the Recommendation of 30 May 2002, the implementation in Europe of the integrated management of coastal zones²⁸. The same holds with Directive 2008/56/EC on Community action in the field of marine environment policy. However, these EU legislative initiatives that consider the protection of the marine environment have not

25 <https://www.eea.europa.eu/soer-2020/>

26 Article 122 and 198 UNCLOS.

27 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. OJ L 327, 22.12.2000, p. 1–73.

28 <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32002H0413>

proven effective for measures at an international level²⁹.

The protection from carriage accidents that transport hazardous materials, began with Regulation (EU) 530/2012³⁰, which introduced a double hull and an equivalent design for single hull oil tankers. It has application to tankers of 5000 tons DWT that bearing the flag of one of the EU Member States sailing in the EU ports. The relevant regulation for military, auxiliary government ships if hazardous materials passing through EU waters are rejected. It is also applied Directive 2005/35/EC³¹ on ship-related pollution and on infringements where third states are prosecuted. The relevant discharges within internal territorial waters that consider the straits of international shipping and the exclusive economic zone as well as the open sea also apply to warships and government ships.

Directive 2009/123/EC³² as amended by Directive 2005/35/EC introduced new rules that have to do with cooperation in EU Member States and the identification and attribution of responsibilities for the discharge of hazardous materials from

²⁹https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/implementation/index_en.htm

³⁰Regulation (EU) No 530/2012 of the European Parliament and of the Council of 13 June 2012 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers (recast). OJ L 172, 30.6.2012, p. 3–9.

³¹Directive 2005/35/EC of the European Parliament and of the Council of 7 September 2005 on ship-source pollution and on the introduction of penalties for infringements. OJ L 255, 30.9.2005, p. 11–21.

³²Directive 2009/123/EC of the European Parliament and of the Council of 21 October 2009 amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements (Text with EEA relevance). OJ L 280, 27.10.2009, p. 52–55.

ships.

Regulation 911/2014³³ financed the relevant actions of the European Maritime Safety Agency (EMSA) regarding the response to marine pollution from ships and related installations that have to do with oil and natural gas. These are Guidelines that have been adopted and are within the framework of the relevant MARPOL 73/78 convention.

What penalties are allowed for the pollution of ships that have to do with the transport of hazardous materials?

Directive 2005/35/EC as amended by Directive 2009/123/EC aims at maritime safety and protection of the marine environment within the institutional framework. The MARPOL 73/78 states that:

“(...) ships sailing in Community waters ignore these rules every day without taking corrective measures (...). It is not applied uniformly but neither is the practice of imposing sanctions from Member States (...). The same, specific deterrent measures should have been taken (...) to incorporate international standards on ship pollution into Community law and to ensure that appropriate sanctions, including criminal sanctions, are imposed on persons responsible for discharges of polluting substances (...)”.

In this way, a large missing part was closed for addressing and rejecting the application of MARPOL 73/78 for EU maritime zones, as well as the introduction of a relevant enforcement mechanism that ensures the general compliance of ships with

³³Regulation (EU) No 911/2014 of the European Parliament and of the Council of 23 July 2014 on multiannual funding for the action of the European Maritime Safety Agency in the field of response to marine pollution caused by ships and oil and gas installations Text with EEA relevance. OJ L 257, 28.8.2014, p. 115–120.

international MARPOL standards 73/78 and the imposition of criminal sanctions on the guilty parties. In my opinion, Directive 2005/35/EC is stricter than MARPOL 73/78 and does not provide for relevant criminal sanctions because in this case the application of EU law commits measures based on intent, negligence, gross negligence and marine accidents. MARPOL 73/78 thus gives the right to coastal states to adopt stricter regulations that have to do with the national level³⁴. Ships under a foreign flag travel in the maritime zones of the EU Member States comply with the provisions of MARPOL 73/78 because if this is not the case the sanctions will be severe but not with immediate effect.

Pollution from accidents and releases of hazardous materials are not easily apparent. Specifically, Directive 2005/35/EC deals with the competence of EMSA. Through the European satellite oil spill monitoring service CleanSeaNet. EMSA has:

“(...) (a) ships and equipment (b) satellite pollution detection system (Cleanseanet) (b) pollution response planning system (c) cooperation network with EU M-Ms to combat pollution (d) specialized personnel and (e) cooperation with third states (...”).

Specifically in article 2 of Regulation 911/2014 it is defined that

“(...) dangerous and harmful substances are any substance other than oil which, if introduced into the marine environment, can create risks for human health, damage biological resources and marine life, destroy recreational infrastructure or affect other legitimate uses of the sea, in accordance with the IMO OPRC-HNS 2000 Protocol (...”).

³⁴Article 9, par. 2 of MARPOL 73/7.

Lastly, the pollution from chemical ships and from EMSA is related to the disposal of hazardous materials and oil, a criminal offense connected with the quantity that is dumped.

EU and maritime hazardous materials safety regulations.

Common policy for safe seas

The constant accidents at European and international level paved the way for a Common Policy on Safe Seas-CPSS) that is formed in 1993³⁵, i.e. a policy for the seas where the action program contained certain rules such as the application of shipping standards within the EU, the application of certain standards of standards for EU ships and ports regardless of their flag, the development of maritime infrastructure related to maritime safety and protection from accidental, operational pollution as well as the increased role of the EU for international maritime safety organizations as well as the protection of marine environment. Within these pillars it has been adopted the non-binding communication COM (96) 81 “towards a new maritime strategy”.

The relevant responsibilities belong to DG MOVE and to Unit D2 which deal with EU maritime safety policy, maritime accident prevention and ship pollution. The maritime transport

³⁵Proposal for a COUNCIL DIRECTIVE amending Directive 81/645/EEC concerning the Community list of less-favoured farming areas within the meaning of Directive 75/268/EEC (Greece).

policy is the result of a cooperation between EMSA and IMO³⁶. DG ENVI and specifically Unit C2 deals with marine pollution, Unit B3 with related waste management and F2 with bilateral or regional cooperations³⁷. These are regulations based on Article 100, par. 2 TFEU (Blanke, Mangiamelli, 2021) which have to do with maritime safety and the protection of the marine environment for ships in accordance with the procedure of article 294 TFEU (Blanke, Mangiamelli, 2021).

The EU is working with the IMO to develop international maritime safety standards such as SOLAS and MARPOL. It also revising legislation to incorporate regulations relating to international law. On the other hand, Directives 2014/90 EU, 2012/32 EU and 96/98 EC attempt to ensure a uniform application of SOLAS regarding the equipment of ships. In addition, the EU Regulation 725/2004³⁸ incorporates the provisions of the International Code that deals with the security of the relevant ships and port facilities (ISPS Code) that belong to the IMO.

36 <https://ec.europa.eu/transport/sites/transport/files/move-mission-statement.pdf>

37 https://ec.europa.eu/dgs/environment/index_en.htm

38 Regulation (EC) No 725/2004 of the European Parliament and of the Council of 31 March 2004 on enhancing ship and port facility security (Text with EEA relevance). OJ L 129, 29.4.2004, p. 6–91.

European shipping box of one type for shipping safety

The maritime single window deals with an information system for the arrival, stay, departure of the ship from the port and the people who board the transported cargo online from the beginning to the gate. The system was proposed by the FAL Convention for the Facilitation of International Maritime Traffic with the ultimate aim of reducing administrative formalities for maritime trade. The approach of the ship and the port is an obligation of registration for the information of the authorities.

The direct procedure by Member States and the single maritime window submits the forms related to the approach of ships and ports in the EU. The single maritime window minimizes the required forms for ships to call at EU ports. This means that the EU authorities are searching electronically the ship that visiting a EU port.

Directive 2010/65/EU³⁹ through the submission of ship declarations for the arrivals at the ports of the Member States (except the relative approach to the ports of the EU) makes use of the information provided for the single maritime window. The submission of declarations, as well as Articles 9 and 24 of

³⁹Directive 2010/65/EU of the European Parliament and of the Council of 20 October 2010 on reporting formalities for ships arriving in and/or departing from ports of the Member States and repealing Directive 2002/6/EC Text with EEA relevance. OJ L 283, 29.10.2010, p. 1–10.

Directive 2009/16/EC refer to:

“(...) (a) berthing of ships in ports of Member States or departures from them (Article 4 of Directive 2002/59/EC); (b) border checks on persons (Article 7 of Regulation (EC) 562/2006); (c) notification of dangerous or polluting goods on board (Article 13 of Directive 2002/59/EC); (d) notification of waste and residues (Article 6 of Directive 2000/59/EC); (e) communication of security-related information (Article 6 of Regulation (EC) 725/2004); (f) summary declaration of entry (Article 36a of Regulation (EEC) 2913/92 & Article 87 of Regulation (EC) 450/2008) and; (g) FAL forms (Board for the Facilitation of International Shipping) and formalities arising from international legal acts such as form: (i) FAL 1: General Declaration; (ii) FAL 2: Declaration Cargo; (iii) FAL 3: Ship's Provisions Declaration; (iv) FAL 4: Crew's Personal Effects Declaration; (v) FAL 5: Crew Status; (vi) FAL 6: Passenger Status; (vii) FAL 7: Dangerous Goods Declaration and; (viii) Shipping health declaration (...).”

It is a system that has to do with the single maritime window, that is related to the exchange of information in the SafeSeaNet, as well as to the electronic customs where from the Schengen system and on it establishes an electronic exchange of information.

(Follows): The shipping information exchange system

SafeSeaNet makes part of the EMSA framework and aims at safe shipping and the policing of ships/ports for the protection of the marine environment linked to the maritime authorities of all EU Member States. Specifically, within the SafeSeaNet system the authorities have identify and record:

“(...) (a) the hours of arrival and departure of ships in ports, (b) details of transported dangerous goods, (c) information on marine incidents and accidents, (d) number of people on board and (e) positions of vessels provided by the Automatic Identification System (AIS) (...).”

Specifically, Directive 2002/59/EC⁴⁰ was amended by Directives 2009/17/EC, 2009/18/EC, 2011/15/EU and 2014/100/EU. It is the basis of SafeSeaNet's operation. Regarding the Port State Control (PSC) for ships, the relevant SafeSeaNet system is used. The EU Member States within the specific plan share information about ships, seventy-two hours before departure, twenty-four hours before departure, the actual time of embarkation and disembarkation as well as relevant information relating to cargo and hazardous materials. Vessels transporting hazardous materials pose a potential risk to relative safety at sea, the port as well as the environment. The system also provides data on the marine accidents suffered by the specific ships.

Within this framework, the National Competent Authority is responsible for the operation of the national SafeSeaNet in relation to the local authorities. Ships with over 300 tons or for vessels transporting hazardous materials, regardless of the number of tons, submit reports at the SafeSeaNet system through the ship-owning companies, agents or masters. Military, government, fishing and pleasure vessels under 45 meters are exempt from obligations to report to the SafeSeaNet system.

Ships carrying hazardous materials come from third countries to be allowed to sail to an EU port and submit the relevant declaration:

⁴⁰Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC. OJ L 208, 5.8.2002, p. 10–27.

“(...) of the shipper with the following information: (a) technical names of the hazardous materials, Agency numbers United Nations (UN), IMO hazard classes from the international IMDG, IBC, IGC and INF codes, quantities thereof and identification number of hazardous materials present outside the tanks; (b) address where information about the cargo can be sought; (c) for substances included in MARPOL Annex I, the safety data sheet stating the physico-chemical characteristics of the products, including where applicable their viscosity in cSt at 50°C and their density at 15°C, and the other data contained in the safety data sheet in accordance with the IMO MSC resolution and; (d) emergency telephone numbers of the shipper or any other person or organization having information about the physico-chemical characteristics of the products and the measures to be taken in case of emergency (...)”,

in accordance with Directive 2002/59/EC which is still in force today.

(Follows): Automatic recognition system

The AIS-Automatic Identification System aims to avoid collisions at sea through the automatic exchange of ship information related to the name, type of ship, course, speed and cargo. Regulation 19 of Chapter V of SOLAS deals with the installation of the system of automatic identification by ships and the exchange of information between ships and port authorities.

The specific regulations that have to do with ships over 300k and traveling in international seas, as well as cargo ships over 500k, where they do not carry out international voyages and all passenger ships regardless of tonnage, will be equipped with the AIS system.

The use of AIS deals with the electronic chart display and information system (ECDIS) installed inside the ships and the electronic charts as seen from the position of the passing ships⁴¹. Within this framework, the EU adopts the implementation of a system of automatic identification based on Directive 2002/59/EC.

Vessel Traffic Monitoring (VTMIS)

After the continuing accidents, the Erika III package was adopted, which had to do with maritime safety and the monitoring of information on the traffic of ships for the maritime zones, reaching the Directive 2002/59/EC, which imposed on ships what was built after 01.07.2002, that is entering EU ports to have an automatic identification system (AIS) as well as the voyage data recorder (VDR)⁴².

The information on high-risk ships that consider port authorities does not apply preventive measures when ships enter at such sea zones⁴³. The Long Range Tracking and Identification-LRIT

41IMO [MSC.74\(69\):](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/MSCResolutions/MSC.74(69).pdf)
[https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1106\(29\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1106(29).pdf) and A.1106(29):
[https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1106\(29\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1106(29).pdf)

42Regulation [V/20](https://assets.publishing.service.gov.uk/media/5a7f0081ed915d74e33f3c6e/solas_v_on_safety_of_navigation.pdf) SOLAS:
https://assets.publishing.service.gov.uk/media/5a7f0081ed915d74e33f3c6e/solas_v_on_safety_of_navigation.pdf

43Regulation [V/19-1](https://www.imo.org/en/OurWork/Safety/Pages/LRIT.aspx) SOLAS:
<https://www.imo.org/en/OurWork/Safety/Pages/LRIT.aspx>

system creates an EU LRIT data center where the use of the AIS system also applies to fishing vessels.

Directive 2009/17/EC⁴⁴ and Directive 2009/16/EC deal with Port State Control of ships. This will help to further develop the Safe Sea Net and reduce the associated administrative burden of departure procedures/in front of the ships as well as the possibility of improving the supervision of the ships by the maritime authorities. The goal is an integrated maritime policy that creates a connection system for the exchange of ship-to-ship/ship-to-vehicle maritime information from the Safe Sea Net. This important piece of information considers the maritime authorities, for the ships with cargo or not that are dangerous.

Towards an integrated maritime policy

A specific institutionalization and development of an integrated maritime policy (IMP)⁴⁵ has to do with the sustainable development of shipping, the protection of the marine environment and the contemporary economy.

The IMP deals with shipping, ports, the marine environment, research, fisheries, aquaculture, energy production, shipbuilding,

⁴⁴Directive 2009/17/EC of the European Parliament and of the Council of 23 April 2009 amending Directive 2002/59/EC establishing a Community vessel traffic monitoring and information system (Text with EEA relevance). OJ L 131, 28.5.2009

⁴⁵https://research-and-innovation.ec.europa.eu/research-area/environment/oceans-and-seas/integrated-maritime-policy_en

maritime surveillance, marine tourism, coastal development as well as EU policy on maritime affairs. The IMP through the EC submits the Blue Paper⁴⁶ and the action plan⁴⁷. Specifically, from 2010, the EC proposed a regulation that establishes a program for the financing of the IMP from 2001 to 2013⁴⁸.

In 2011, the Parliament and the Council approved the relevant Regulation 1255/2011 for the IMP, which has as its ultimate goal the sustainable development of the seas-ports, the progress of maritime work, the protection of the marine environment, the management of fisheries and the establishment of an integrated strategy for the sea (2008/56/EC). All the above have to do with cross-sectoral policies such as blue growth, data and knowledge about the sea, maritime spatial planning, maritime surveillance for strategic and sea basins. Furthermore, Regulation 1255/2011⁴⁹ consolidated the relevant framework of the IMP.

46Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An Integrated Maritime Policy for the European Union {COM(2007) 574 final} {SEC(2007) 1278} {SEC(2007) 1279} {SEC(2007) 1280} {SEC(2007) 1283}. COM/2007/0575 final.

47Commission staff working document - Accompanying document to the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - An Integrated Maritime Policy for the European Union {COM(2007) 574 final} {COM(2007) 575 final} {SEC(2007) 1279} {SEC(2007) 1280} {SEC(2007) 1283}. SEC/2007/1278 final.

48Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing a Programme to support the further development of an Integrated Maritime Policy SEC(2010) 1097 final. COM/2010/0494 final - COD 2010/0257.

49Regulation (EU) No 1255/2011 of the European Parliament and of the Council of 30 November 2011 establishing a Programme to support the further development of an Integrated Maritime Policy Text with EEA relevance. OJ L 321, 5.12.2011, p.

Regulations 1255/2011, 1380/2013⁵⁰ and 508/2014 on the European Maritime and Fisheries Fund are the basis for the MFRS.

The objectives of the IMP aim at (a) improving the efficiency of maritime transport in the EU and ensuring its long-term competitiveness, through the creation of a European maritime transport area without borders, and a maritime transport strategy for the period 2008-2018; (b) implementation of environmental legislation for ports; (c) innovative shipbuilding industry through partnerships; (d) strengthening of maritime jobs; (e) protection of the marine environment; (f) management of fisheries; (g) EU integrated maritime strategy (2008/56/EC); (h) development of coastal areas and; (i) promotion of the EU Maritime Policy through cooperation of the M-M.

The EU maritime policy action plan is set out in the EC's communication COM(2008) 534, the maritime transport policy in COM(2009) 8, the creation of maritime transport without borders in COM(2009) 10, the embarkation and disembarkation of ships from K-M ports in COM (2009) 11, the reduction of red tape in maritime transport in COM (2009) 11 and, in the blue development policy in COM (2012) 494.

1-10.

50Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC. OJ L 354, 28.12.2013, p. 22-61.

Directive 2014/89/EU⁵¹ establishes maritime spatial planning and COM (2014) 451 provides the maritime surveillance information exchange environment. On 16 January 2018, the Parliament approved the relevant resolution that had to do with the future of the seas and sustainable development until 2030⁵². A development of partnerships for the Atlantic Ocean, Baltic, Mediterranean, Adriatic and Black Sea regions has occupied with issues covered by the Directorate DG MARE.

Direct control within the port state

UNCLOS in article 2, par. 1 and article 218 (Tanaka, 2023) refers to the imposition of regulations on states that have ports. Each Member State must take measures for the ships that enter the internal waters, the port facility and the violation of the conditions that have to do with specific waters⁵³. Coastal states must establish regulations of a special nature for the reduction and control of pollution for the entry of foreign ships to specific ports and internal waters as well as to the offshore coasts. The

⁵¹Directive 2014/89/EU of the European Parliament and of the Council of 23 July 2014 establishing a framework for maritime spatial planning. OJ L 257, 28.8.2014.

⁵²European Parliament resolution of 16 January 2018 on international ocean governance: an agenda for the future of our oceans in the context of the 2030 SDGs (2017/2055(INI)). OJ C 458, 19.12.2018, p. 9-33 and https://www.europarl.europa.eu/doceo/document/A-8-2017-0399_EL.html?redirect.

⁵³Article 25, par. 2 UNCLOS.

latter worked with publicity⁵⁴ and announcements to IMO⁵⁵.

The UNCLOS gives the right to impose regulations in cases where the limits of relative competence have the ultimate purpose of correcting the relative deficiencies that consider ships flying a foreign flag⁵⁶. Within this framework, a Port State Control (PSC) was created (Özçayır, 2018).

Single-hull ships carrying hazardous materials within the territorial waters restrict the right to freedom of navigation and force the EU to proceed with a new order in accordance with Regulation 1726/2003⁵⁷ which amended Regulation 417/2002 for the gradual introduction of requirements double hull as well as the equivalent design that has to do with single hull oil tankers.

Specifically, Regulation 1726/2003 was repealed by Regulation 530/2012 after the gradual establishment of the relevant requirements of the double hull or an equivalent design, where the oil tankers are single hull. Moreover, the specific measure was not foreseen by MARPOL 73/78 and did not open a discussion for further confrontation that has to do with coastal and maritime states as can be seen between ships carrying

54Article 211, par. 3 UNCLOS.

55<https://www.icj-cij.org/files/case-related/70/070-19860627-JUD-01-00-EN.pdf>

56Article 218 and 219 UNCLOS.

57Regulation (EC) No 1726/2003 of the European Parliament and of the Council of 22 July 2003 amending Regulation (EC) No 417/2002 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers. OJ L 249, 01/10/2003, p. 1–4.

dangerous goods and between the maritime zones that enter in the ports and are not based on the rules of international law.

MARPOL 73/78 does not regulate the relevant issue and for this reason it refers to UNCLOS⁵⁸ and the signing of conventions that give the right to regulate the relative access of foreign-flagged ships to ports. This needs more interpretation in accordance with the general principle of international right of good faith.

The IMO Conventions aim at maritime safety and protection of the marine environment thus ensuring the application of more regulations for maritime states without limiting coastal states from taking preventive measures for a stricter framework at national level. The regulations on the port state cannot hinder the right of passage of the sea and comply with the general principles of international law where proportionality and the prohibition of the relevant discrimination in accordance with article 30 have to do with the protection of the marine environment of the coastal states in order to balance the freedom of navigation by maritime states within Article 211, par. 3 of UNCLOS (Tanaka, 2023).

The ships that have the flag and the issuance of the relevant certificates as well as the ship-owning company are responsible for these states. Thus the EU port state assumes the inspection of

58See also MARPOL 73/78 article 9:
[https://www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-\(MARPOL\).aspx](https://www.imo.org/en/about/Conventions/Pages/International-Convention-for-the-Prevention-of-Pollution-from-Ships-(MARPOL).aspx)

the ships in ports and internal waters of the EU Member States through the high risk ships that do not comply with the international rules. Ship inspections are distributed fairly by each Member State within the framework of the EU.

It seems clear that we have several legal weapons in our hands for the protection of the marine environment and the maritime transport of hazardous materials. An important issue is the inability of many maritime states to comply with international standards⁵⁹. The ships that operate do not comply with the standards that have advantages with the combination of sanctions that apply the international requirements. The enforcement power of the Conventions for maritime states does not conform to international standards but observed in international legislation. The effective control of ships did not have the relative result they wanted⁶⁰ despite the continuous efforts to strengthen a control role for the port state which depends on the port state⁶¹.

The shipping standards between the port state control and the EU political shipping bases were formed by the Paris memorandum of cooperation. The lax application of the standards for the Paris Memorandum and Cooperation for the

59<https://www.parismou.org/detentions-banning/white-grey-and-black-list>

60<https://www.parismou.org/2018-paris-mou-annual-report-consistent-compliance>

61IMO. A.1119(30) 2017:
[https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1119\(30\).pdf](https://wwwcdn.imo.org/localresources/en/KnowledgeCentre/IndexofIMOResolutions/AssemblyDocuments/A.1119(30).pdf)

free movement of ships that do not comply with international standards⁶² resulted in the Directive 95/21/EC for the relevant Port State Control and with the aim of transforming the commitments of the memorandum of cooperation in commitments where they are legally binding.

Lastly, the Directive 2001/106/EC⁶³ develops a control system for the age of the ship, the status and the flag. This system monitors the booking register of high-risk ships and allocates them to a blacklist. Its ultimate goal is that high-risk ships approaching the ports of EU Member States cannot dock.

Concluding remarks

The safety and protection of the marine environment had as its purpose the adoption of a common policy for safer seas due to marine accidents. The policies of the EU are several and indirectly they have to do with the application of international standards for maritime safety at a more relaxed pace where the contribution of the IMO as well as the EU in maritime matters

⁶²<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:51989DC0266&qid=1584744765689&from=E>

⁶³Directive 2001/106/EC of the European Parliament and of the Council of 19 December 2001 amending Council Directive 95/21/EC concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the Member States, of international standards for ship safety, pollution prevention and shipboard living and working conditions (port state control). OJ L 19, 22.1.2002, p. 17–31.

has resulted⁶⁴ in new decisions for the strengthening of maritime security sectors with more drastic measures within international standards.

The regulations for an integrated maritime policy, safety and protection of the marine environment was crucial within the Erika III package, improving safety at sea by restricting ships. In other words the Member States through bilateral and not treaties will be able to carry out their ships between the sea zones and heading to the ports. The transport safety regulations that implement the provisions of UNCLOS (Tanaka, 2023) and which are introduced in any way into the EU law under the form of directives have as an ultimate goal of uniformity to avoid obstacles for new forms of accidents in maritime trade.

Hazardous materials that are distinguished within the EU framework have to do with the state intervention of legislative regulations where the policy for maritime safety between ship control services based on international and European law implementing maritime safety on international regulations applied between the EU Member States. The information system and the maritime transport of dangerous materials consider navigation and the designation of special areas where the prohibition of navigation is limited and the continuation of other relevant rules to contribute positively to the confrontation of

⁶⁴[https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?
uri=COM:2005:0585:FIN:EN:PDF](https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0585:FIN:EN:PDF)

coastal and maritime states between the maritime transport of hazardous materials cannot definitively solve the problem of protection of the sea from hazardous materials.

References

Blanke, H.J., Mangiamelli, S. (2021). *Treaty on the Functioning of the European Union. A commentary*. ed. Springer, Berlin.

Chalmers, D., Davies, G., Monti, G., Heyvaert, V. (2024). *European Union law*. Cambridge University Press, Cambridge.

Dawson, M., De Witte, F. (2022). *European Union law and governance*. Cambridge University Press, Cambridge.

Dupuy, P.M., Viñuales, J.E. (2018). *International environmental law*. Cambridge University Press, Cambridge.

IHMM, (2018). (Institute of Hazardous Materials Management): <https://ihmm.org/>

Kingston, S., Heyvaert, V., Cavoski, A. (2017). *European environmental law*. Cambridge University Press. Cambridge.

Mandaraka-Sheppard, A. (2013). *Modern maritime law. Managing risks and liabilities*. Routledge, London.

Özçayır, O. (2018). *Port State Control* (maritime and transport law library). Routledge, London.

Petra, J. (2015). Judicial enforcement of WTO rules before the Court of Justice of the European Union. *ELTE Law Journal*, 1, 3ss.

PHMSA, (2018). (U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration): <http://phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e>

[39f2e55cf2031050248a0cvgnextoid=c32be097181b3110VgnV](#)[CM1000009ed07898RCRD](#)

Samiotis G., Grekos D. (2016). Transport and destruction of Syrian chemical weapons on the Mediterranean Sea. *Environmental Policy and Law Journal*, 46 (3), 5ss.

Schütze, R. (2018). *European Union Law*. Cambridge University Press, Cambridge.

Tanaka, Y. (2023). *The international law of the sea*. Cambridge University Press, Cambridge.

Van Calster, A., Reins, L. (2018). *European Union environmental law*. Edward Elgar Publishing. Cheltenham.

Zang, Q.M. (2017), Shall we talk? Judicial communication between the CJEU and WTO dispute settlement. *The European Journal of International Law*, 28 (1), 273-293.